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REMARKS

Claims 1-26 and 30 are currently pending in the subject application and are presently under consideration. Claims 1-16, 20, 22, 25-26, and 30 have been amended as shown at pp. 2-8 of the Reply. In addition, claim 21 has been cancelled. Furthermore, claims 27-29 have been withdrawn.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Objection of Claim 21 Under 37 CFR 1.75(c)

Claim 21 stands objected to under 37 CFR 1.75(c), as being of improper form. Claim 21 has been cancelled, and therefore this objection is moot and withdrawal thereof is respectfully requested.

II. Rejection of Claims 1-26 Under 35 U.S.C. §101

Claims 1-26 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Independent claims 1, 16, 22, and 26 have been amended such that the claims recite ... being embodied on a component implemented on a computer readable medium. Claims 2-15, 17-20, and 23-25 respectively depend from these independent claims. Accordingly, withdrawal of this rejection is respectfully requested.

III. Rejection of Claims 6, 7, 13, 18 and 23 Under 35 U.S.C §112

Claims 6, 7, 13, 18 and 23 stand rejected under 35 U.S.C §112, first paragraph, as failing to comply with the enablement requirement. Claims 6 and 7 have been amended to cure any deficiencies related this rejection. However contrary to assertions in the Office Action, claims 13, 18, and 23 do not recite that a protocol generates an authentication challenge. Claims 13, 18, and 23 recite that the authentication challenge is generated by at least one of a Kerberos authentication system, a Digest authentication system, a Basic authentication system, an NTLM authentication system and a certificate based authentication system. These are authentication systems employing the security protocols: Basic, Kerberos, Digest, NTLM, and certificate based. It is the authentication system that generates the challenge based upon the security protocol that is employed, not the protocol generating the challenge. The specification clearly provides

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support for this claim language. (See e.g., page 4, lines 1-18 and page 16, line 6-11)
Accordingly, withdrawal of this rejection is respectfully requested.

IV. Rejection of Claims 5, 13-15, 18, 23 and 25 Under 35 U.S.C §112

Claims 5, 13-15, 18, 23 and 25 stand rejected under 35 U.S.C. §112, second paragraph, because the Office Action asserts the claims as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 (and claim 3 from which claim 5 depends), 14, 15 and 25 have been amended to cure any deficiencies related this rejection. However contrary to assertions in the Office Action, claims 13, 18, and 23 do not recite that a protocol generates an authentication challenge. Claims 13, 18 and 23 recite that the authentication challenge is generated by at least one of a Kerberos authentication system, a Digest authentication system, a Basic authentication system, an NTLM authentication system and a certificate based authentication system. These are authentication systems employing the security protocols: Basic, Kerberos, Digest, NTLM, and certificate based. It is the authentication system that generates the challenge based upon the security protocol that is employed, not the protocol generating the challenge. The specification clearly provides support for this claim language. (See e.g., page 4, lines 1-18 and page 16, line 6-11)
Accordingly, withdrawal of this rejection is respectfully requested.

V. Rejection of Claims 1, 3, 4, 13 and 14 Under 35 U.S.C. §102(b)

Claims 1, 3, 4, 13 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kessler (Gary Kessler, "Security in Windows NT" <http://www.garykessler.net/library/ntsecurity.html>). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Kessler does not teach or suggest each and every limitation of applicants' claimed invention.

For a prior art reference to anticipate, 35 U.S.C. §102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (quoting *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)).

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The subject invention relates to responding to challenges from various authentication systems that does not require recompiling and recoding of an application making the access request in an environment where the authentication systems are changing. For instance, applicants' claimed invention can receive an authentication challenge and send first data to an authentication manager that contains the challenge data minus any communication protocol data. This allows for an authentication manager that is generic for various communication protocols. The authentication manager can process the first data into one or more second data and pass the second data to one or more authentication modules. The ability for the authentication manager to produce multiple types of second data allows for the authentication manager to interact with various authentication modules that require differing input data. The second data can be specific to the needs of the authentication module that the second data is being sent to, such as by adding to, transforming, or removing some of the first data. In the case where the authentication module needs to interact with multiple authentication modules for a challenge, the authentication manager can process the first data into second data for one authentication module and different second data for another authentication module. In particular, claim 1 recites *an authentication manager that receives first data associated with the communication challenge and processes the first data into second data of a first type appropriate for a first authentication module, the authentication manager further processes the first data into second data of a second type appropriate for a second authentication module, the first and second authentication modules having different requirements for secondary data, the authentication manager further communicates at least one of the second data to at least one authentication module, the second data related to the first data and the authentication challenge.*

Kessler does not teach or suggest the aforementioned novel aspects of applicants' invention as recited in the subject claim. Kessler teaches receipt of a random number challenge and then processing the random number using a hashing function to generate a response. Kessler fails to teach or suggest processing the random number into two different data *prior* to employing the hashing function. The lack of this feature fails to support multiple authentication modules that require different input data. Therefore, Kessler fails to teach or suggest processing the first data into a second data of a first type appropriate for a first authentication module, the authentication manager further processing the first data into a second data of a second type

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appropriate for a second authentication module, the first and second authentication modules having different requirements for secondary data.

Accordingly, applicants' representative respectfully submits that Kessler fails to teach or suggest all limitations of applicants' invention as recited in independent claim 1 (and claims 3, 4 and 13-14 that depend there from), and thus fails to anticipate or make obvious the subject claimed invention. Therefore, it is readily apparent that this rejection should be withdrawn.

VI. Rejection of Claims 1, 3, 4, 13 and 14 Under 35 U.S.C. §102(b)

Claims 1, 3, 4, 13 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kaeo (Merike Kaeo, *Designing network security*", 1999, ISBN: 1578700434). It is respectfully requested that this rejection should be withdrawn for at least the following reasons. Kaeo does not teach or suggest each and every limitation of applicants' claimed invention.

Kaeo employs a system similar to Kessler. Kaeo teaches receipt of a challenge message containing challenge data. The challenge data is sent to a hashing function minus any communication protocol data to produce a response. Kaeo, like Kessler, also fails to teach or suggest processing the challenge data into two different data *prior* to employing the hashing function. Therefore, Kaeo fails to teach or suggest processing the first data into a second data of a first type appropriate for a first authentication module, the authentication manager further processing the first data into a second data of a second type appropriate for a second authentication module, the first and second authentication modules having different requirements for secondary data as in the claimed invention.

Accordingly, applicants' representative respectfully submits that Kaeo fails to teach or suggest all limitations of applicants' invention as recited in independent claim 1 (and claims 3, 4, 13 and 14 that depend there from), and thus fails to anticipate the subject claimed invention. This rejection should be withdrawn.

VII. Rejection of Claim 30 Under 35 U.S.C. §102(b)

Claim 30 stands rejected under 35 U.S.C. §102(b) as being anticipated by Hill (Brett Hill, *"IIS 101: The Basics of IIS Authentication"*, <http://www.windowsitpro.com/Web/ArticleID/15843/15843.html>) in light of Microsoft (Microsoft, *"Windows 2000 Server TCP/IP core networking guide"*, 2000, ISBN: 1572318058).

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It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. A rejection citing two prior art references is improper under 35 U.S.C. §102(b). Moreover, the subject application has a filing date of March 27, 2001. Hill was published on October 11, 2000. Therefore, since Hill was published less than one year prior to applicants' filing date, Hill is not citable prior art under a 35 U.S.C. §102(b) rejection. Furthermore, in anticipation of the Examiner asserting a rejection under §103 based on the cited references, it is not that the Microsoft reference discusses TCP/IP Protocol architecture but does not teach or suggest authentication features as recited in the subject claim.

Withdrawal of this rejection is respectfully requested.

VIII. Rejection of Claims 10-12, 15-18, 22, 23, 25 and 26 Under 35 U.S.C. §103(a)

Claims 10-12, 15-18, 22, 23, 25 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kessler (Gary Kessler, "Security in Windows NT" <http://www.garykessler.net/library/ntsecurity.html>) in view of Official Notice. It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Kessler in view of Official Notice does not teach or suggest each and every limitation of applicants' claimed invention.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. See *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Independent claims 16, 22 and 26 (similar to independent claim 1) recite *the authentication manager processes the first data into a second data of a first type appropriate*

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for a first authentication module, further where the authentication manager processes the first data into a second data of a second type appropriate for a second authentication module, the first and second authentication modules having different requirements for secondary data, ... pass at least one of the secondary data ... to one or more authentication modules. Claims 10-12 and 15 depend from independent claim 1. Independent claims 16, 22, and 26 and claims 10-12 and 15 should be allowable based upon the above noted deficiencies of Kessler with respect to the similar limitations recited in independent claim 1. The Examiner also takes official notice to the fact that it would have been obvious to one of ordinary skill in the art at the time the invention was made to register objects with the class factory and data store, and to use applications that do not have to be recoded to recoded or recompiled to employ newly registered objects.. Applicants' representative respectfully traverses the aforementioned well known statements and request that the Examiner cite a reference in support of his position pursuant to MPEP§ 2144.03, or in the alternative withdraw this rejection.

Applicants' representative respectfully submits that Kessler in view of Official Notice fails to teach or suggest all limitations of applicants' invention as recited in independent claims 16, 22 and 26 (and claims 17-18, 23 and 25 that depend there from) and claims 10-12 and 15, and thus fails to make obvious the subject claimed invention. In view of the foregoing comments, it is readily apparent that this rejection should be withdrawn.

IX. Rejection of Claims 8, 9, 19 and 24 Under 35 U.S.C. §103(a)

Claims 8, 9, 19 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kessler (Gary Kessler, "Security in Windows NT" <http://www.garykessler.net/library/ntsecurity.html>) in view of Itoi, *et al.* (Pluggable Authentication Modules for Windows NT) and further in view of Official Notice. It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Kessler, Itoi, *et al.*, and Official Notice, alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

Claims 8, 9, 19 and 24 depend from independent claims 1, 16 and 22. Itoi, *et al.* does not make up for the deficiencies of Kessler discussed *supra* with respect to these independent claims. Itoi, *et al.* teaches a system where pluggable authentication modules are called to authenticate a user for various services. However, Itoi, *et al.* teaches that for a user the

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same data (username, realm, password) is passed to each of the pluggable authentication modules. Itoi, *et al.* fails to teach or suggest processing the data into two different data *prior* to sending it to the authentication modules. Therefore, Itoi, *et al.* does not teach or suggest *the authentication manager processes the first data into a second data of a first type appropriate for a first authentication module, further where the authentication manager processes the first data into a second data of a second type appropriate for a second authentication module, the first and second authentication modules having different requirements for secondary data, ... pass at least one of the secondary data ... to one or more authentication modules.* Furthermore, the Examiner also takes official notice to the fact that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a class factory and authentication objects. Applicants' representative respectfully traverses the aforementioned well known statements and request that the Examiner cite a reference in support of his position pursuant to MPEP §144.03.

In view of at least the above, it is respectfully submitted that Kessler, Itoi, *et al.*, and Official Notice, alone or in combination, does not teach or suggest applicants' invention as recited in independent claims 1, 16 and 22 (and claims 8, 9, 19 and 24 which respectively depend there from). Accordingly, withdrawal of this rejection is respectfully requested.

X. Rejection of Claims 2 and 5 Under 35 U.S.C. §103(a)

Claims 2 and 5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kaeo (Merike Kaeo, Designing network security", 1999, ISBN: 1578700434) and Kessler (Gary Kessler, "Security in Windows NT" <http://www.garykessler.net/library/ntsecurity.html>) in view of Van Hoff (U.S. 5,822,539). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Kessler and Kaeo, in view of Van Hoff, do not teach or suggest each and every limitation of applicants' claimed invention.

Claims 2 and 5 depend from independent claim 1. Van Hoff does not make up for the deficiencies of Kessler and Kaeo as discussed *supra* with respect to independent claim 1. Van Hoff teaches an automated document annotation system for adding hyperlink cross references. Van Hoff fails to discuss, teach or suggest authentication features.

Accordingly, applicants' representative respectfully submits that Kessler, Kaeo, and Van Hoff, alone or in combination fails to teach or suggest all limitations of applicants' invention as

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recited in independent claim 1 (and claims 2 and 5 that depend there from). Therefore, it is readily apparent that this rejection should be withdrawn.

CONCLUSION


The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP202US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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